APPENDIX M

RESPONSE TO COMMENTS

Former ORP / Building 1 Area

Former Oakland Army Base - EDC Area, Oakland, California

California Department of Toxic Substance Control Comments

mills, melissa

From: Henry Wong [HWong@dtsc.ca.gov]
Sent: Tuesday, November 15, 2005 4:59 PM
To: JCarolan@geomatrix.com; AClough@oaklandnet.com
Cc: Daniel Murphy; Mark Berscheid; mills, melissa; steiger, michael; Tran.Xuan-Mai@epamail.epa.gov; alan.leavitt@ngem.com; kwayne@pacificstates.net; dheinze@portoakland.com; caswellr@sddc.army.mil; dnarala@waterboards.ca.gov
Subject: RDIP Concurrence - Building 1 Area

Hi Andrew and Jim,

DTSC has reviewed the Remedial Design and Implementation Plan (RDIP) for the Building 1 Area, together with supportive documents such as the Soil Treatment Process Plan (STPP), Sampling and Analysis Plan (SAP), etc. DTSC has provided comments on the plans, held meetings and conference calls, evaluated the Responses to Comments (RTCs), and checked the redlined drafts. DTSC is satisfied with the RTCs and the draft final RDIP, STPP, SAP, etc.

Please prepare hard copies of the RTCs, RDIP, STPP, SAP, and other plans, and create compact discs with PDF files of all documents. Upon returning from vacation on January 3, 2006, I will follow up with an approval letter on the plans. In the interest of moving the project forward, this email constitutes DTSC's concurrence for OBRA to implement the remedy at the Building 1 Area in according with the proposal.

Thank you all for your contributions on this project.

Henry Wong
Berkeley OMF

mills, melissa

From:	mills, melissa
Sent:	Thursday, November 10, 2005 6:11 PM
To:	'Henry Wong'; AClough@oaklandnet.com
Cc:	Daniel Murphy; steiger, michael; Tran.Xuan-Mai@epamail.epa.gov; JCarolan@geomatrix.com; alan.leavitt@ngem.com; kwayne@pacificstates.net; dheinze@portoakland.com; dnarala@waterboards.ca.gov
Subject:	RE: Building 1 RDIP
Attachments:	Figure 8 flowchart_Nov2005.pdf

Henry,

Below are OBRA's responses to DTSC's comments provided in emails on 9 November 2005 and 10 November 2005. As we discussed with you today, we are awaiting your final approval of the RDIP based on these responses, and the final RDIP will not be distributed before you leave for vacation. Please see OBRA's responses, including minor editorial changes, below:

Building 1 RDIP

Comments 1-3, 7: OBRA will make the editorial changes requested.

Comment 4: OBRA will make the requested paragraph replacement. The first bullet in Section 4.2.5.1 will be revised to say,

> "If analytical results of a representative sample of Overburden soil collected in accordance with the SAP indicate that a soil stockpile is acceptable for reuse in accordance with Section 7.4.2 of the RMP, as clarified in DTSC's letter entitled *Soil Reuse, Former Oakland Army Base – Economic Development Conveyance Area, Oakland California,* dated 24 December 2004, and COC concentrations do not exceed remediation goals established in the RAP, land disposal restrictions, and the California hazardous waste criteria, the soil may be reused on-site to backfill the excavation, provided the Overburden stockpile meets geotechnical requirements."

Comment 5: OBRA will make the requested sentence replacement. The first sentence in the first paragraph of Section 5.2, will be revised to say,

> "The excavated area will be backfilled with imported fill and Overburden deemed acceptable for reuse in accordance with Section 7.4.2 of the RMP, as clarified in DTSC's letter entitled *Soil Reuse, Former Oakland Army Base – Economic Development Conveyance Area, Oakland California*, dated 24 December 2004, and COC concentrations in imported fill and Overburden should not exceed remediation goals established in the RAP, land disposal restrictions, and the California hazardous waste criteria."

Comment 6: OBRA has added Note 7 to Figure 8 as requested (please see attached - Figure 8).

Sampling and Analysis Plan

Comment 1: OBRA will make the requested sentence replacement. The last sentence in the third paragraph of Section 4.1.1 will be revised to say,

> "Overburden with the potential for reuse will be evaluated in accordance with Section 7.4.2 of the RMP, DTSC's letter entitled *Soil Reuse, Former Oakland Army Base – EDC Area, Oakland California*, dated 24 December 2004, and COC concentrations should not exceed remediation goals established in the RAP, land disposal restrictions, and the California hazardous waste criteria."

Comment 2: As discussed today, OBRA will make no change to the SAP regarding DTSC's Comment 2. This comment is addressed in Section 4.2 second to last paragraph.

Comment 3: OBRA will make the requested paragraph replacement. The last bullet in Section 6.1 will be revised to say,

> "If possible, the Contractor will collect confirmation soil samples from the freshly exposed bottom of the excavation at a depth of approximately 6-inches above the expected groundwater depth in the excavation, which is expected to be at a depth of approximately 4 to 5 feet bgs (a similar depth to the sidewall confirmation samples). The number of bottom samples will be determined in consultation with DTSC, and samples will be collected only in locations where groundwater has not covered the excavation bottom. The target bottom sample area will be from areas where prior in-situ data are less frequent and spaced farther apart than other areas of the excavation."

Additional comment (4): OBRA will make the editorial change, as requested, replacing "Treatment Process Plan" with "Soil Treatment Process Plan" throughout the SAP.

Please feel free to call with any questions.

Thank you,

Melissa

Figure 8
wchart_Nov2005.pd

Melissa B. Mills
Erler & Kalinowski, Inc.
1870 Ogden Drive
Burlingame, CA 94010-5306
(650) 292 - 9100 Fax: (650) 552-9012

-----Original Message-----
From: Henry Wong [mailto:HWong@dtsc.ca.gov]
Sent: Thursday, November 10, 2005 11:08 AM
To: mills, melissa; AClough@oaklandnet.com
Cc: Daniel Murphy; steiger, michael; Tran.Xuan-Mai@epamail.epa.gov; JCarolan@geomatrix.com; alan.leavitt@ngem.com; kwayne@pacificstates.net; dheinze@portoakland.com; dnarala@waterboards.ca.gov
Subject: Re: Building 1 RDIP

Hi Melissa and Andrew,

Here are my comments on the Building 1 RDIP:

1. RDIP, Section 2.1 and 3.5.3: Please replace "Storm Water Management Plan" with "Storm Water Pollution Prevention Plan."

2. RDIP, Section 3.5.2: Please replace "drainage pad" with "treatment pad."

3. RDIP, Section 3.5.3: Please replace "Dust Control Plan" with "Dust and Odor Control Plan." Please ensure all titles of the accompaniment plan are accurate.

4. RDIP, Section 4.2.5.1, first bullet: Please replace the bullet with: "If analytical results of a representative sample of Overburden soil collected in accordance with the SAP indicate that a soil stockpile is acceptable for reuse in accordance with Section 7.4.2 of the RMP, as clarified in DTSC's letter entitled Soil Reuse, Former Oakland Army Base - Economic Development Conveyance Area, Oakland California, dated 24 December 2004, and COC concentrations should not exceed remediation goals established in the RAP, land disposal restrictions, and the California hazardous waste criteria.

The soil may be reused on-Site to backfill the excavation, provided the Overburden stockpile meets geotechnical requirements."

5. RDIP, Section 5.2, first paragraph, first sentence: Please replace the sentence with: "The excavated area will be backfilled with imported fill and Overburden deemed acceptable for reuse in accordance with Section 7.4.2 of the RMP, as clarified in DTSC's letter entitled Soil Reuse, Former Oakland Army Base - Economic Development Conveyance Area, Oakland California, dated 24 December 2004, and COC concentrations should not exceed remediation goals established in the RAP, land disposal restrictions, and the California hazardous waste criteria."

6. RDIP, Figure 8: Please include Note 7 of Figure 6 of the draft Soil Treatment Process Plan dated November 4, 2005 on Figure 8 of the RDIP. Please provide a footnote reference in the upper rightmost circle on Figure 8 of the RDIP.

7. RDIP, All Sections: Please replace "on-Site" with "on-site."

Thank you.

Henry Wong

>>> Henry Wong 11/09/05 4:59 PM >>>
Hi Melissa and Andrew,

Please also replace "Treatment Process Plan" with "Soil Treatment Process Plan" throughout the SAP (five replacements are necessary). In the interest of time, you may respond to these comments and provide the revised SAP language via email. Thank you.

Henry

>>> Henry Wong 11/09/05 4:50 PM >>>
Hi Melissa and Andrew,

Here are my comments on the Sample and Analysis Plan (Appendix A of the RDIP):

1. SAP, Section 4.1.1, third paragraph, last sentence: Please replace the sentence with the following: "Overburden with the potential for reuse will be evaluated in accordance with Section 7.4.2 of the RMP, DTSC's letter entitled Soil Reuse, Former Oakland Army Base - EDC Area, Oakland California, dated 24 December 2004, and COC concentrations should not exceed remediation goals established in the RAP, land disposal restrictions, and should not meet the California hazardous waste criteria."

2. SAP, Section 4.2: Please include TCLP lead and STLC lead analyses before a stockpile soil could be reused on-site as backfill material.

3. SAP, Section 6.1, last bullet: Please replace "standing water" with "the expected groundwater depth." Please clarify whether the entire base case excavation floor would be limited to only six confirmation bottom samples. The number of such sample seems inadequate, please provide justification.

I will provide comments on the RDIP tomorrow.

Henry

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15 March 2005

Mr. Henry Wong
Remedial Project Manager
Office of Military Facilities
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710

Subject: Response to DTSC Comments on
Draft Remedial Design and Implementation Plan, Former ORP/Building 1 Area,
Former Oakland Army Base – EDC Area, Oakland, California
(EKI A10063.00)

Dear Mr. Wong:

On behalf of Oakland Base Reuse Authority ("OBRA"), Erler & Kalinowski, Inc. ("EKI") has prepared this letter in response to Department of Toxic Substances Control ("DTSC") comments on the *Draft Remedial Design and Implementation Plan ("RDIP"), Former ORP / Building 1 Area, Former Oakland Army Base – EDC Area, Oakland, California*, dated 9 February 2004, as provided in DTSC's comment letter dated 4 May 2004. This letter contains a restatement of each of DTSC's comments, followed by OBRA's response.

1. General: Please review the terms "off-Site" and "Site" throughout the RDIP and the appendices to ensure correct usage. The RDIP uses the term "Site" to describe the Former ORP/Building 1 Area.

Response: *The RDIP will be revised to define the term "off-Site" in the table of contents and consistently use the specific term "off-Site" when referring to any area outside the Limits of Work of the Former ORP / Building 1 Area, i.e., the "Site" subject to this RDIP. When referring to other off-site areas, for example, outside the Former Oakland Army Base - EDC Area, the final RDIP will use the generic term "off-site" or will describe more clearly what is meant by "off-site".*

2. Section 1.1: Please revise the RDIP to state that DTSC approved the RAP on September 27, 2002. The Army had no approval authority on the RAP.

Response: *The RDIP will be revised to state that DTSC approved the RAP on 27 September 2002.*

3. Section 1.1.2: The Risk Management Plan (RMP) Section 7.4.2 allows on-site reuse of stockpiled soil if concentrations of chemicals of concern (COC) in samples of stockpiled soil are below the remediation goals or constituent concentrations that would trigger land disposal restrictions (LDR), whichever is more conservative. However, the RDIP fails to consider LDR triggers as criteria for on-site reuse of stockpiled soil. Please revise the RDIP to include this LDR criteria when considering on-site reuse of stockpiled soil. In addition, one four-point composite soil sample should be collected per 200 cubic yards of stockpiled soil and analyzed for all constituents listed in Table 3 of the RMP.

Response: *OBRA agrees that the RDIP should consider the soil reuse criteria in Section 7.4.2 as the criteria for on-site soil reuse of stockpiled soil from the excavation conducted at the Former ORP / Building 1 Area RAP Site. Pertinent sections of the RDIP that address potential reuse of the excavated soil will be revised to include Section 7.4.2 of the RMP, as clarified in DTSC's letter entitled Soil Reuse, Former Oakland Army Base - EDC Area, Oakland, California, dated 24 December 2004, as the criteria for such reuse.*

The draft RDIP currently states in Section 3.3.1: "Individual stockpiles or stockpile segments of Overburden soil will not exceed 200 cubic yards. However, the Contractor will only collect and analyze one composite soil sample per 600 cubic yards of stockpiled Overburden. The composite sample will be comprised of three discrete samples, one each from three separate 200 cubic yard stockpiles or stockpile segments, and the composite sample will be analyzed for the list of COCs, as identified in the SAP. For the anticipated 8,000 cubic yards of Overburden soil to be excavated in the Base Case Excavation, this will result in collection of approximately 13 composite soil samples, which is a significant number of laboratory analyses for the full suite of COCs as the basis for reuse of the Overburden, which has already been sampled in many borings as summarized in Section 4.1.1 of Appendix B of the RDIP.

Given all of these prior and planned analysis, OBRA disagrees with DTSC that one four-point composite soil sample should be collected per 200 cubic yards of stockpiled soil and analyzed for all constituents listed in Table 3 of the RMP, in strict accordance with RMP protocols. It

was never the intent of the RAP / RMP that strict compliance with the RMP be required during implementation of approved remedies at RAP Sites, for which separate RDIPs are written. It was our understanding that the purpose of writing the separate RDIPs is to specify unique protocols for implementation of the approved remedy at each unique RAP Site. Clearly, once the approved remedy is implemented at one of the RAP Sites, any residual occurrences of COCs will be managed under the RMP protocols, e.g., during future redevelopment. Section 5 of the RMP clearly provides flexibility to OBRA and DTSC in application of RMP protocols, with DTSC approval. Section 5.2 explicitly states that DTSC or OBRA "may make a demonstration that provisions of the RMP, including those related to the soil and/or groundwater at specified property or locations within the RMP Implementation Area, should be modified with other appropriate provisions".

As has been discussed in the Technical Team Meetings (see Meeting Minutes dated 10 March 2004), site-specific sampling protocols were developed in the Building 1 Area RDIP for DTSC approval to augment the already available, substantial amount of in-place sampling results with respect to characterization of excavated soils for reuse, primarily Overburden soil. OBRA should be allowed to propose and use protocols in the RDIP that benefit from the substantial database for the Building 1 Area, and these protocols are expected to be applicable only to the Former ORP / Building 1 Area during implementation of the approved remedy. Justification for use of an alternative sampling protocol for this area is provided in the RDIP and discussed further in response to other comments below.

The following paragraph will be added to the Introduction of the Final RDIP to clarify the use of RMP protocols in this RDIP:

"In accordance with the RAP / RMP, unique protocols for implementation of the approved remedial action have been developed specifically for the Site, one of seven identified RAP sites within the Former Oakland Army Base – EDC Area. In addition, some risk management protocols, developed in the RAP / RMP, for RMP locations, have been incorporated into this RDIP and have been modified where deemed appropriate for use during remedial activities. Upon completion of the approved remedial action, the Site will then be subject to all of the RMP protocols established in the RMP. As stated on page 2-3 of the Final RMP, Section 2.2.1 – RAP Sites, "The seven RAP sites are contained within the RMP Implementation Area and will be subject to all risk management protocols set forth in [the] RMP once remedial actions have been completed."

4. Section 2.2: Please include the RAP and the Memorandum of Agreement between the Army and DTSC to the second table of Section 2.2.

Response: *The RDIP will be revised to include these documents in the table in Section 2.2.*

5. Sections 2.1.4, 2.1.5, 2.1.6, 2.1.7, and 2.3: Please include DTSC in the review process for the Perimeter Air Monitoring Plan, Storm Water Pollution Prevention Plan, Decontamination Plan, and Odor Control Plan.

Response: *The Storm Water Pollution Prevention Plan is common to the construction industry and is typically prepared by the construction Contractor without prior review of regulatory agencies in conformance with State Water Resources Control Board regulations and guidance. While the other plans have some attributes unique to the Building 1 Area, it is expected that the selected remediation Contractor will utilize conventional methodologies in each. OBRA trusts that DTSC's review will be timely and will allow that OBRA cannot dictate means and methods to the Contractor if the objective goals of the contract specifications can be met with the Contractor's plans. The RDIP will be revised to reflect and inform the bidders that DTSC will participate in the review process for these plans.*

6. Sections 2.1.8, 2.3, and 3.6: Please specify that DTSC must review and approve the Treatment Process Plan and the final RDIP before OBRA or its contractor begins implementation of the remedial action.

Response: *The RDIP will be revised to specify that DTSC must review and approve the Treatment Process Plan and the Final RDIP prior to the Contractor's initial work at the Site that involves disturbance of subsurface soils or on-Site treatment of impacted soils.*

7. Section 3.2: Please discuss the visual differences between organic residue, stained and oily soil, overburden, and underlying clayey and sandy sediments. DTSC requests the submittal of JPG files clearly showing the appearances of these materials.

Response: *The RDIP will be revised to describe the visual differences between the four types of soil in more detail. Photographs that show these different materials were provided to DTSC in the Treatability Test Field Activities Report, Former ORP / Building 1 Area, Oakland Army Base, dated 22 July 2003.*

8. Section 3.2, page 3-3, first paragraph: Section 7.4.2 of the RMP should be referenced instead of the Contract Documents for on-site soil reuse criteria.

Response: *The RDIP will be revised to reference Section 7.4.2 of the RMP for soil reuse criteria. The Contract Documents for bidding of the remediation work at the Former ORP / Building 1 Area will incorporate, and require compliance with, the Draft and Final RDIP, as approved by the DTSC.*

9. Section 3.2: The lateral extent of soil contamination may be reaching Building 6 or extending beneath Building 6. Please discuss the remedial strategy under this situation. DTSC may not be able to concur with the completion of the Former ORP/Building 1 Area if soil contamination remains.

Response: *As discussed in the Technical Team Meetings (see Meeting Minutes dated 11 February 2004), OBRA will evaluate its options for Building 6 following remediation based on sidewall confirmation soil sampling and visual observations. OBRA will consider and evaluate subsequently demolishing Building 6 if Building 1 Remediation Waste, as defined in the RDIP, is believed to extend beneath Building 6 in appreciable thickness. However, if the layer is thin (on average less than 2 to 3 inches) and is found to be of minor overall volume or if it is only Stained and Oily Soil that is not otherwise determined to be RCRA hazardous waste, any such residual contamination near or under Building 6 will be left in place. Building 6 will become an RMP Location that will be subject to RMP protocols during future redevelopment. Any residual contamination left beneath Building 6, which will be addressed as an RMP location, should not result in the delay of issuance of the completion certification from DTSC for the Building 1 RAP Site.*

10. Section 3.3.1: DTSC requires compliance of the RMP Section 7.4.2 for on-site reuse of stockpiled soil. Please also see the comments on the Sampling and Analysis Plan, Appendix B.

Response: *See response to Comment No 3. OBRA believes the sampling frequency as proposed in the Draft RDIP is adequate to characterize the Overburden when used to augment existing Overburden data. See additional discussion in more detail in response to comments on the Sampling and Analysis Plan (response to Comment Nos. 21 through 31).*

11. Section 3.4.2: The RDIP states that previous sampling efforts reveal the absence of COC at the clayey and sandy sediments. The RDIP argues that this information is sufficient to determine whether remediation is complete and suggests that confirmation samples would not be collected on the excavation floor. The RDIP further reasons that bottom confirmation soil samples would be difficult to collect from below standing infiltrated groundwater. DTSC disagrees with these arguments and requires strict compliance of Section 7.4.1 of the RMP. As stated in the RMP, bottom confirmation samples shall be collected from excavation bottoms at discrete locations on approximately 50-foot centers for areas greater than approximately 2,500 square feet. Excavation bottom samples shall not be composited. If an excavation extends below the groundwater table, a grab groundwater sample shall be collected in lieu of a bottom confirmation soil sample. Such grab groundwater samples for metal analysis shall be field-filtered. All other analyses shall not be field filtered.

Response: *OBRA disagrees with DTSC's assertion that all sampling at this or other RAP Sites must be in "strict accordance with RMP protocols" (See response to Comment No. 3 above). Strict compliance with the sampling and analysis protocols in Section 7.4.1 of the RMP is impractical and unnecessary at the Former ORP / Building 1 Area because of its unique mixture of COCs, its size, and the planned remedial strategy. The RMP protocols were envisioned for known or encountered minor locations, e.g., a washrack, a stained spot, or a grease trap – not an area the size of the planned Building 1 Area excavation or an area like the Building 1 Area for which such substantial environmental data already exists.*

In response to a similar comment by U.S. EPA in a letter dated 8 March 2004, OBRA has agreed that, if possible, some confirmation soil samples will be collected from the Building 1 Area excavation bottom in subareas where groundwater has not filled the bottom of the excavation (See "Response to U.S. EPA Comments", dated 6 April 2004). Section 3.4.2 of the final RDIP will be modified to indicate that bottom confirmation soil samples may be collected under these conditions. The RDIP will describe that approximately 23 samples of underlying clayey and sandy sediment have historically been collected and analyzed within the proposed Base Case Excavation area, which is approximately 57,000 square feet. This number of existing underlying clayey and sandy sediment samples corresponds to an approximate sample frequency of one sample per 2,500 square feet, or one sample per 50-foot grid.

Grab groundwater sample from standing water in the base of the excavation will not be representative of COC concentrations in the underlying sandy and clayey sediments at this Site and should not be used as basis for deciding if the excavation bottom has been reached. Excavation activities are planned beneath the groundwater table only as needed to remove

Building 1 Remediation Waste. These planned excavation activities will create muddy groundwater; the concentrations of COCs in the muddy groundwater will not be related to the COC concentrations in the underlying sandy and clayey sediments. Further, there are no groundwater remedial action objectives for the Former ORP / Building 1 Area stated in the RAP, i.e., the approved remedy for the Building 1 Area does not include any groundwater remedial measures, and there are no groundwater Remediation Goals for the primary chemical of concern in this area, i.e., lead. Considering these site-specific conditions, OBRA believes that the most effective, practical, and efficient method to confirm that Building 1 Remediation Waste has been removed in the vertical direction is to rely upon visual evidence that the Organic Residue has been removed for reasons stated in the Draft RDIP. That is, with the knowledge that the underlying sandy and clayey sediments have been shown to be free of COCs concentrations greater than Remediation Goals based on an in-situ sampling frequency that is approximately equivalent to a 50-foot grid. No grab groundwater samples are planned in the excavation area.

12. Page 3-10, last sentence: Please correct the typo in the specified sentence.

Response: *The typo will be corrected.*

13. Section 4.2.4: The RDIP states that the boundaries of the study are delineated by the Limits of Work shown on Figure 3; however, Figure 3 depicts the "Planned Excavation Limits." Please clarify.

Response: *The term "Planned Excavation Limits" will not be used in the RDIP. The correct term is "Base Case Excavation". Figure 3 in the Final RDIP will depict the "Base Case Excavation", and a new figure will depict the "Limits of Work", which is the larger, fenced area encompassing the land within which the Contractor is allowed to carry on its operations.*

14. Section 4.2.5.1: The RDIP fails to include the LDR triggers as criteria for on-site reuse of stockpiled soil. DTSC reiterates that OBRA and its Contractor must comply with the RMP Section 7.4.2 when deciding whether excavated soil can be reused at the RMP Implementation Area. Please see additional comments on the Sampling and Analysis Plan, Appendix B.

Response: *The RDIP and the SAP will be revised to reference Section 7.4.2 of the RMP for soil reuse analytical criteria. Also see responses to Comment Nos. 3 and 11.*

15. Section 4.2.5.2: DTSC requires confirmation soil be collected on excavation sidewalls and bottom pursuant to the RMP Section 7.4.1.

Response: *See response to Comment No. 11. No revisions to the Draft RDIP text are planned.*

16. Section 4.2.5.5: Please discuss the collection procedure of representative samples for debris, concrete, asphalt, and woodpiles for hazardous waste characterization.

Response: *All sampling will be conducted by the Contractor in accordance with the final Site-wide Quality Assurance Program Plan ("QAPP"). If the final QAPP does not include procedures for collecting representative samples of these materials, the procedures will be included in the Final RDIP as an appendix.*

17. Section 4.2.5.6: The RDIP proposes to use the City of Oakland's specification for import fill. DTSC requests the use of DTSC's Clean Fill Advisory instead of the City's specification for backfilling the excavation. The Clean Fill Advisory is available for download at DTSC's web site.

Response: *OBRA believes that the City of Oakland import fill specification is appropriate to this Site, as it has been generally used within the City of Oakland and applies specifically to import fill for use at commercial and industrial sites. On the contrary, DTSC's "Information Advisor Clean Import Fill Material", dated October 2001, applies only to sensitive land use properties, such as hospitals, homes, day care centers, and schools. Sensitive land uses are prohibited under the land use covenants for the Former OARB – EDC Area. Thus, the DTSC guidance cited in Comment No. 17 is not relevant. The import fill specifications for the Former ORP / Building 1 Remediation Project are included in Section 02206 of the Contract Documents, dated January 2005, which were provided to DTSC.*

18. Section 5: Please discuss the operational procedures for collecting, storing, and disposing the potentially contaminated liquid accumulated at the excavation.

Response:

The RDIP and associated Contract Documents will be revised to specify the operation procedures for collecting, storing, and disposing the potentially contaminated liquid accumulated at the excavation. The specifications for water management as set forth in the RDIP and Contract Documents will adhere to DTSC's position on this issue described in DTSC's letter entitled Management of Water at Building 1 Excavation, Former Oakland Army Base - EDC Area, Oakland, California, dated 20 January 2005.

Note that the RAP and prior site characterization reports provide clear indication that the shallow groundwater in the Former ORP / Building 1 Area is known to be locally contaminated, e.g., by low pH and elevated lead. However, the RAP does not include any remediation of such localized groundwater conditions; groundwater remediation goals in the RAP focus on protection of future site occupants from volatilization risks and reflect adopted land use controls. If such risks are identified by future groundwater monitoring, post-removal of Building 1 Remediation Wastes in the Former ORP / Building 1 Area, then appropriate remedies in the RAP / RMP can be applied in consultation with the DTSC.

19. Section 5.1: Please specify that OBRA will conduct quarterly groundwater monitoring for five years upon completion of soil remediation at the Former ORP/Building 1 Area. DTSC may modify the monitoring frequency based on the review of groundwater data.

Response: *The RDIP will be revised to specify that OBRA will conduct quarterly groundwater monitoring for five years upon completion of soil remediation at the Former ORP/Building 1 Area and that OBRA, with DTSC's approval, may modify the monitoring frequency based on a review of groundwater data as allowed in the RAP / RMP.*

20. Section 5.1: Please note that groundwater reuse at the RMP Implementation Area is already restricted. The RDIP incorrectly suggests that groundwater will be restricted for all use.

Response: *The RDIP will be revised to indicate that groundwater reuse within the RMP Implementation Area, including the Former ORP / Building 1 Area, is restricted from use in accordance with the adopted land use covenants.*

21. Appendix B, Sections 3.1 and 3.2: The RDIP states that the Contractor may adjust the sampling frequency of pre-treatment samples and post-treatment samples based on the level of performance consistency. The RDIP requires such adjustment be allowed after written approval from the Client Representative only. DTSC should also be reviewing and approving any adjustment of sampling frequency.

Response: *OBRA agrees that DTSC should also review and approve any adjustment of sampling frequency that proposes less frequent or otherwise less conservative approaches than those that are specified in the Contractor's approved Treatment Process Plan, and the RDIP will be revised to indicate this. If the Contractor proposes more frequent or otherwise more conservative sampling than specified in the Treatment Process Plan, e.g., if required to control or otherwise enhance performance of the treatment process, OBRA believes that such changes should be rapidly implemented when deemed appropriate by the Client Representative and that DTSC does not need prior review or approval of such changes. However, the Final RDIP will require that the DTSC be informed of any changes in treatment process sampling protocols, within 48 hours of Client Representative's approval of changes.*

22. Appendix B, Section 4.1.1: The RDIP uses the term "Base Case Excavation Limits" in Section 4.1.1 and "Planned Excavation Limits" in Figure 3 to identify the same area. Please clarify and revise the RDIP accordingly.

Response: *The term "Planned Excavation Limits" will not be used in the RDIP. The correct term is "Base Case Excavation".*

23. Appendix B, Section 4.1.1: The RDIP reports that no COC, except dioxin, were detected at concentrations greater than remediation goals for 17 in-situ overburden samples. Please discuss whether these samples contain constituent concentrations that would trigger LDR pursuant to 22 CCR 66268.

Response: *See response to Comment No. 27 below; no Remediation Goals established in the RAP were exceeded by the results of these samples. It is unknown at this time if these soil samples contain constituents that would trigger LDRs because such triggering requires performance of the Toxicity Characteristic Leaching Procedure ("TCLP") for pertinent COCs to determine, first, if the Overburden soil, or some portion of it, is RCRA hazardous waste. No*

TCLPs were performed on the previously collected seventeen in-situ Overburden soil samples in question.

Note however, that detected concentration of dioxin-like compounds, as well as the laboratory reporting limits for these dioxin-like compounds, are all less than ten times their respective universal treatment standard ("UTS"), i.e., as specified in the federal LDRs, for all dioxin-like compounds for which a UTS criterion exists. Thus, the available data indicate that overburden soil would not require treatment for dioxins prior to land disposal even if the Overburden were to fail the TCLP for lead, thereby triggering LDRs. Additionally, dioxin-like compounds do not have a regulated maximum concentration for extract using the TCLP that would render a material containing dioxin-like compounds a hazardous waste.

As described in Section 4.2 of the SAP, based on a review of total concentrations of COCs in excavated and stockpiled soil, the Contractor may be required to perform certain TCLPs to demonstrate that the stockpiled Overburden is not a RCRA hazardous waste. This means that, if the detected total concentration of any compound, for which a TCLP criterion exists, is present in the excavated soil stockpiles at or exceeding twenty times the RCRA TCLP Levels, the soil could potentially fail the TCLP if the TCLP were performed. In accordance with the RDIP, such soil samples will be subjected to the TCLP to determine if the sampled, stockpiled material is a RCRA hazardous waste.

24. Appendix B, Section 4.1.1: The RMP Section 7.4.2 establishes criteria for reusing any excavated soil at the RMP Implementation Area. The RMP requires comparison of COC concentrations in one representative soil sample per 200 cubic yards of stockpiled soil with either the remediation goals or the constituent concentrations that would trigger LDR, whichever is more conservative. The stockpiled soil cannot be reused on-site if any COC concentrations exceed either the remediation goals or LDR triggers. However, the RDIP fails to include LDR triggers for on-site reuse of the stockpiled soil. DTSC requests that the RDIP be revised in accordance with the RMP Section 7.4.2.

Response: *As discussed in the response above to Comment No. 3, the SAP will be revised to reference Section 7.4.2 of the RMP with respect to the Remediation Goal concentration criteria and LDR triggers for soil reuse criteria.*

25. Appendix B, Section 4.1.1: The RDIP proposes to reduce the sampling frequency for determining whether the stockpiled soil can be reuse on-site. The RDIP proposes one

representative sample per 600 cubic yards of stockpiled soil along with 17 previously collected on-site overburden samples for on-site reuse determination. DTSC does not agree with the proposed reduction because a higher sampling frequency would minimize stockpiled soil with concentration above remediation goals or LDR triggers be reused on-site. The use of the 17 previously collected overburden samples is problematic because they are not representative (i.e., composited) samples and some COC concentrations may exceed the LDR triggers.

Response: *The potential that stockpiled Overburden soil with COC concentrations above Remediation Goals or LDR triggers will be reused on-site is already low, given that none of the prior 17 in-situ Overburden soil samples were found to contain COCs at concentrations greater than Remediation Goals. In OBRA's opinion, this additional level of testing of Overburden soil – that has already been tested to a significant degree – is unnecessary and not cost-effective, particularly considering the significant unit cost to perform a full suite of laboratory analyses for all COCs listed in Table 3 of the RMP. Further, as required by the RDIP, if any field observations suggest potential contamination of the excavated Overburden soil, the Client Representative will direct that additional appropriate soil samples be obtained prior to soil reuse on-Site.*

26. Appendix B, Section 4.1.1: DTSC requests four discrete samples, instead of three, be collected and combined to create one representative soil sample per 200 cubic yards of stockpiled soil for on-site reuse determination.

Response: *See the response to Comment No. 3 above. OBRA plans to collect one composite sample per 600 cubic yards of Overburden soil. Overburden soil will be stockpiled in 200 cubic yard piles. It is most practical if the composite sample is made up of three discrete soil samples, i.e., one discreet sample per 200 cubic yards. Section 7.4.2 of the RMP does not distinguish how many discrete samples should be collected for volumes of excavated soil exceeding 200 cubic yards.*

27. Appendix B, Section 4.1.2: DTSC takes conservative approach in deciding whether a stockpiled soil can be reused on-site. One of the available five overburden samples indicated with 1.9 ug/kg of 1,2,3,7,8-PeCDD. The remediation goal is 0.1 ug/kg for 2,3,7,8-TCDD and 0.2 ug/kg for 1,2,3,7,8-PeCDD. Table 2 of the RDIP shows the detection limits of majority of the dioxins and furans were 10 to 50 times above the 0.1 ug/kg remediation goal. However, the RDIP summarizes that dioxin-like compounds were either not detected or detected in trace amount. DTSC disagrees with the RDIP because most of the detection limits of dioxins and furans were above the remediation goals. DTSC requires analysis of dioxins and furans in all

representative samples collected per 200 cubic yards of stockpiled soil for on-site reuse determination.

Response: *See the response to Comment No. 3. In "Response to U.S. EPA Comments", dated 6 April 2004, OBRA agreed to modify the sampling protocols in the RDIP for dioxins such that approximately 15 composite samples of stockpiled Overburden and other soil proposed for reuse will be analyzed for dioxin-like compounds with appropriate low-level detection limits. The samples for dioxin-like compound analyses will target stockpiled Overburden soil and other soils proposed for reuse that originated from areas that (a) are near trenches OBRA-T08 and OBRA-T10 where 1,2,3,7,8-PeCDD was detected at an elevated concentration, and (b) where currently available, in-situ dioxin data are less frequent and/or the detection limit for 2,3,7,8 - TCDD is above its Remediation Goal.*

As stated in the response to Comment No. 25, OBRA believes that more frequent testing of Overburden Soil, especially a frequent testing for dioxin-like compounds than what is currently proposed in the draft RDIP, is unnecessary. Additional analysis of dioxin-like compounds is costly and will also delay field work, as laboratory turn-around-times for dioxin analysis can be upwards of one month.

Note that while 1,2,3,7,8-PeCDD was detected at an elevated concentration in one of the Overburden samples, it was not identified as chemicals of concern in the RAP / RMP, and thus does not yet have an applicable site-specific Remediation Goal. 2,3,7,8-TCDD is the only dioxin-like compound that currently has an established Remediation Goal in the RAP / RMP. Remediation Goals for 1,2,3,7,8-PeCDD, or other dioxin-like compounds, will be developed in accordance with the protocols set forth in Section 7 of the RAP, only if they are identified as chemicals of concern based on stockpile sampling and analyses (with appropriately low detection levels).

28. Appendix B, Section 4.2: The RDIP fails to include the comparison of LDR triggers in determinating [sic] on-site reuse of stockpiled soil. DTSC requires all constituents, including dioxins and furans, listed in Table 3 of the RMP be analyzed for on-site reuse determination. The lower constituent concentrations of either the remediation goals or LDR triggers should be used to compare with the representative sample from a 200 cubic yards stockpiled soil. The representative sample should be created by combining four discrete samples at the laboratory.

Response: *As discussed in the response above to Comment No. 3, the SAP will be revised to reference Section 7.4.2 of the RMP with respect to the Remediation Goal concentration criteria and LDR triggers for soil reuse criteria.*

29. Appendix B, Section 6.2: The RDIP proposes to analyze only 50% of confirmation soil sidewall samples to evaluate whether remediation is complete. DTSC disagrees with such proposal. One hundred percent of the confirmation samples must be analyzed for all constituents listed in Table 3 of the RMP.

Response: *See the response to Comment No. 3 above. The side-wall sampling protocols presented in the Draft RDIP were developed taking into consideration the size of the expected excavation and what is believed to be a practical and implementable approach to determining that the objective of the approved remedy for the Building 1 Area RAP Site has been obtained, i.e., removal of Building 1 Remediation Waste. As presented in the Draft RDIP, all sidewall samples will be analyzed for the primary COCs identified at the Building 1 Area RAP Site (total lead, TPHd, and TPHmo). The proposed analysis of half of all of the final sidewall samples for Title 22 Metals, selected SVOCs (listed in Table 7-11 of the RAP), and VOCs is provided only as a verification that significant areas of the excavation limits do not contain elevated concentrations of other, generally unexpected, COCs. Again, the RMP protocols, e.g., taking excavation sidewall samples every 50 linear feet, were developed for the anticipated scores of much smaller RMP Locations. Our understanding of the intent of the individual RDIPs is the development of unique, cost-effective protocols for individual RAP Sites, particularly one as large as the Building 1 Area.*

30. Appendix B, Section 6.3: The RDIP proposes that DTSC will have three working days to complete its review on confirmation sample data prior to backfilling the excavation. DTSC may or may not be able to review the data within three working days. DTSC reserves the right to notify of our need for additional review time, and to determine whether remediation is complete upon reviewing the closure report for the Former ORP/Building 1 Area.

Response: *OBRA understands that DTSC reserves its right to determine whether remediation is complete upon reviewing the closure report for the Former ORP / Building 1 Area, and the RDIP will be revised to state such. However, the purpose of allowing the Client Representative and DTSC three working days to complete their review of confirmation soil data is that, in order to bid the job, the Contractor needs to know that there is a mechanism placing limits on the amount of time for OBRA and DTSC review data and to make decisions on field operations such that OBRA and DTSC do not impede progress of the Contractor's work and potentially incur claims for work delays. Unfortunately, these decisions on continuing or terminating excavations will need to be made rapidly.*

31. Appendix B, Section 7: The RDIP proposes to use the City of Oakland's specification for import fill. DTSC requests the use of DTSC's Clean Fill Advisory instead of the City's specification for backfilling the excavation. The Clean Fill Advisory is available for download at DTSC's web site.

Response: *See the response to Comment No. 17 above.*

32. Appendix D, Section 1.2.3: The RDIP states that the pH measurements in groundwater are shown on Figure 4; however, Figure 4 shows the Cross Section A-A'. Please revise accordingly.

Response: *Appendix D will be corrected and revised accordingly.*

33. Appendix D, Section 2.3.3: A soil sample collected 10 feet from Building 60 contains 2,500 mg/kg of lead. This area is outside of the Planned Excavation Limits. OBRA plans to remediate this contamination as a RMP Location during site redevelopment, different from the Building 1 Area remediation schedule. Please discuss how would OBRA comply with the LDR for the lead contaminated soil near Building 60.

Response: *The future Contractor(s) performing site redevelopment near Building 60 will be required to follow the RMP protocols. At this particular location, this means that when the Building 60 area is redeveloped and remediated by the redevelopment Contractor, the Contractor will be required to perform TCLPs on any excavated soils to demonstrate that such soil is not a RCRA hazardous waste prior to off-site disposal, as well as any other required characterization prior to any reuse on-site. If remaining Building 1 Remediation Waste is encountered, e.g., near or beneath Building 60, then such material will be managed as a RCRA hazardous waste with full consideration of LDR trigger criteria in effect at that time and the cost consequences thereof. Also as noted above in the response to Comment No. 3, the entire Building 1 Area will be part of the RMP Implementation Area after implementing the RDIP.*

Please call with any questions.

Very truly yours,

ERLER & KALINOWSKI, INC.

Michael T. Steiger, P.E.
Project Manager

cc: Andrew Clough, R.G. (OBRA)
Diane Heinze, P.E. (Port of Oakland)
Henry Wong (DTSC)
Adriana Constantinescu (RWQCB)
Roger Caswell, P.E. (U.S. Army)

United States Environmental Protection Agency Comments

mills, melissa

From: Tran.Xuan-Mai@epamail.epa.gov

Sent: Tuesday, April 26, 2005 10:44 AM

To: steiger, michael

Cc: Andrew Clough (E-mail); Adriana Constantinescu (E-mail); Roger Caswell (E-mail); Diane Heinze (E-mail); emailtofile; Henry Wong (E-mail); mills, melissa

Subject: Re: FW: RTC on Building 1 RDIP - A10063.00

Hi Michael. Thank you for the responses re: Building 1 RDIP. We've reviewed the responses and all of our comments are addressed. Therefore, we have no further comments. Please go ahead to finalize the document. Please include the clarification in the text of the document. Thanks. XM.

mills, melissa

From: steiger, michael
Sent: Thursday, April 21, 2005 2:24 PM
To: Xuan-Mai Tran (E-mail)
Cc: Adriana Constantinescu (E-mail); Henry Wong (E-mail); Andrew Clough (E-mail); Diane Heinze (E-mail); Roger Caswell (E-mail); mills, melissa; emailtofile
Subject: FW: RTC on Building 1 RDIP - A10063.00

Xuan Mai -- please see below OBRA's responses (in CAPS) to your most recent round of comments on the Building 1 RDIP. Please call if you have questions.

Michael T. Steiger, P.E.
Erler & Kalinowski, Inc.
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email msteiger@ekiconsult.com

-----Original Message-----
From: Tran.Xuan-Mai@epamail.epa.gov
[mailto:Tran.Xuan-Mai@epamail.epa.gov]
Sent: Thursday, April 07, 2005 11:10 AM
To: steiger, michael; aclough@oaklandnet.com; hwong@dtsc.ca.gov; avc@rb2.swrcb.ca.gov
Subject: RE: electronic version of the RTC on Building 1 RDIP - A10063.00

Hi Andrew and Michael.

We've looked through the OBRA's responses to our comments re: the Building 1 RDIP. The OBRA has addressed our comments with the following
exceptions:

Response to U.S. EPA's Comment Regarding OBRA's Response to Comment No.
4: The comment was partially addressed. The fate of Building 6 was discussed, but Building 60 was not mentioned. To resolve this comment, please revise the RDIP text to describe the approach to demolition of Buildings 6 and 60.

AT THIS POINT, THE DEMOLITION STATUS OF BUILDINGS 6 AND 60 IS THE SAME; IT IS UNKNOWN IF THE BUILDINGS WILL BE DEMOLISHED. OBRA WILL CONSIDER DEMOLITION IF BUILDING 1 REMEDIATION WASTE IS FOUND TO EXTEND BELOW EITHER BUILDING IN APPRECIABLE THICKNESS. THE RDIP TEXT WILL BE REVISED TO DESCRIBE THE APPROACH TO DEMOLITION OF BUILDINGS 6 AND 60.

Response to U.S. EPA's Comment Regarding OBRA's Response to Comment No.
9: The comment was partially addressed. It is unclear if the Remedial Design and Implementation Plan (RDIP) text will be revised, though OBRA states that the groundwater restrictions are permanent. To resolve this comment, please revise the RDIP text to state that the groundwater restrictions are permanent.

THE RDIP TEXT WILL BE REVISED TO STATE THAT THE GROUNDWATER RESTRICTIONS ARE PERMANENT.

Response to U.S. EPA's Comment Regarding OBRA's Response to Comment No.
10: The public health rationale for collecting one dioxin sample per 600 cubic yards of potential backfill material

(overburden) is unclear and is inconsistent with the DTSC's request for more frequent sampling.
Further, it is unclear how dioxin results for multiple congeners will be interpreted and compared with a remediation goal based on the single 2,3,7,8-TCDD congener. The response to DTSC's Comment 27 seems to suggest that the congeners other than 2,3,7,8-TCDD (e.g.,
1,2,3,7,8-PeCDD) will only be considered if additional remediation goals are established. For example, a toxicity equivalent to 2,3,7,8-TCDD (a
TEQ) could be calculated from all congener data and compared against a TEQ remediation goal. While OBRA has agreed to improve reporting limits for dioxin analyses, it remains unclear that 15 samples will be sufficient to characterize the overburden or how the data will be evaluated once obtained. Please clarify the rationale for the number of samples analyzed and the basis for the remediation goal.

THE SAMPLING FREQUENCY PROPOSED IN THE RESPONSE TO DTSC COMMENTS, DATED 15 MARCH 2005, HAS BEEN APPROVED BY DTSC. OBRA, THE PORT, AND DTSC HAVE AGREED THAT THE PROPOSED SAMPLING FREQUENCY OF 15 DIOXIN SAMPLES TARGETED TO SOIL MOST LIKELY TO CONTAIN DIOXIN-LIKE COMPOUNDS IS SUFFICIENT.

IF A DIOXIN-LIKE COMPOUND OTHER THAN 2,3,7,8-TCDD (CURRENTLY WHICH IS THE ONLY DIOXIN WITH A REMEDIATION GOAL) IS DETECTED IN SOIL AT A FREQUENCY AND/OR CONCENTRATION THAT RENDERS THAT PARTICULAR DIOXIN-LIKE COMPOUND A CHEMICAL OF CONCERN (FOLLOWING PROTOCOLS IN SECTION 5 OF THE DTSC-APPROVED RAP), THEN A REMEDIATION GOAL WILL BE ESTABLISHED FOR THAT DIOXIN-LIKE COMPOUND. NOTE THAT THE TOXICITY EQUIVALENT (TEQ) REMEDIATION GOAL IS A CUMULATIVE RISK GOAL. CUMULATIVE RISK WILL BE CONSIDERED FOLLOWING PROTOCOLS ESTABLISHED IN SECTION 7.5 OF THE RAP. IT REQUIRES THAT EACH SITE MEET A CUMULATIVE HAZARD INDEX OF LESS THAN 1, AND A CUMULATIVE CARCINOGENIC RISK OF LESS THAN 10-5.

You can respond to these comments via email. Thanks. XM.

Erler & Kalinowski, Inc.
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(650) 292-9100
Fax (650) 552-9012

15 March 2005

Ms. Xuan-Mai Tran
Remedial Project Manager
U.S EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Subject: U.S. EPA's Review of Response to Comments
Draft Remedial Design and Implementation Plan, Former ORP/Building 1 Area,
Former Oakland Army Base – EDC Area, Oakland, California
(EKI A10063.00)

Dear Ms. Tran:

On behalf of Oakland Base Reuse Authority ("OBRA"), Erler & Kalinowski, Inc. ("EKI") has prepared this letter to address and close outstanding issues with OBRA's responses to U.S. Environmental Protection Agency, Region IX ("U.S. EPA") comments on the *Draft Remedial Design and Implementation Plan ("RDIP"), Former ORP / Building 1 Area, Former Oakland Army Base - EDC Area, Oakland, California.*

Background

Upon its review of the Former ORP / Building 1 RDIP, U.S. provided its initial comments on the RDIP to OBRA in a letter dated 8 March 2004. OBRA then responded to U.S. EPA comments in a letter dated 6 April 2004. U.S. EPA reviewed OBRA's response to comment letter, and provided additional comments in a letter entitled *Review of Response to Comments on the Draft Remedial Design and Implementation Plan, Former ORP / Building 1 Area, Former Oakland Army Base - EDC Area, Oakland, California*, dated 26 April 2004. This letter contains a restatement of U.S. EPA's additional comments in its 26 April 2004 letter, followed by OBRA's response.

Comments

U.S. EPA's Comment Regarding OBRA's Response to Comment No. 2: The response appears to adequately address the comment, provided that the revised version is correct. The original phrasing ("does not appear to extend horizontally *much* beyond the areas..." [emphasis added]) seems to indicate that the low pH groundwater does extend horizontally beyond the areas where Organic Residue is present, whereas the new phrasing ("does not appear to extend horizontally beyond the areas...") seems to indicate that the low pH groundwater does not extend horizontally beyond the areas where Organic Residue is present. If the low pH groundwater does extend horizontally beyond the areas where Organic Residue is present, as originally indicated, the original phrasing ("much beyond") can be left as is, as long as the new sentence explaining that the low pH groundwater does not extend beyond the limits of the planned Base Case Excavation limits is added to the text in the final draft. If the low pH groundwater does not extend horizontally beyond the areas where Organic Residue is present, in contradiction to the original phrasing, the response to comment is adequate.

Response: *The low pH groundwater does not appear to extend horizontally beyond the areas where Organic Residue is present, therefore, as suggested by U.S. EPA's comment above, OBRA's response in its 6 April 2004 response to comment letter is adequate.*

U.S. EPA's Comment Regarding OBRA's Response to Comment No. 3: Please explain how "planned work areas" and "pertinent locations" will be defined and how it will be determined whether particular data is included in the site-specific H&SP.

Response: *All available data within the Former ORP / Building 1 Site will be included and considered in the site-specific H&SP. Section 2.1.1.3 of the final RDIP will be modified to state: "The Site-specific H&SP prepared for the Site will, at a minimum, account for potential occurrences of these historically detected maximum COC concentrations at the Former ORP / Building 1 Remediation Site during the anticipated environmental remediation activities, that is, site-specific H&SPs will address all available data for the Site."*

U.S. EPA's Comment Regarding OBRA's Response to Comment No. 4: The response states that no building demolition activities are expected to be included in the Building 1 Area remediation project, but does not explain if and when Buildings 6 and 60 will be demolished, as requested in the comment.

Response: *It is unknown at this time when Buildings 6 and 60 will be demolished. OBRA will consider demolishing Building 6 if Building 1 Remediation Waste is found during remediation to extend beneath Building 6 in appreciable thickness. See the response to DTSC Comment Nos. 9 and 3327 in "Response to DTSC Comments", dated 15 March 2005.*

U.S. EPA's Comment Regarding OBRA's Response to Comment No. 8: Please clarify whether the phrase "if possible" refers only to the potential presence of groundwater at the bottom of the excavation, or if other factors may preclude this additional confirmation sampling.

Response: *The phrase "if possible" refers to the potential presence of groundwater at the bottom of the excavation, which will make collection of bottom confirmation samples difficult.*

U.S. EPA's Comment Regarding OBRA's Response to Comment No. 9: It would be helpful if the text stated whether these groundwater restrictions are permanent instead of just referring the reader to the deed restriction for the property.

Response: *The groundwater restrictions are permanent.*

U.S. EPA's Comment Regarding OBRA's Response to Comment No. 10: The response appears to adequately address the comment, but please confirm that the text in Appendix B, Section 4.1.2 (Sampling for Dioxin-Like Compounds) will be revised to indicate that all of the Overburden samples (not just one third of them) will be analyzed for dioxin-like compounds.

Response: *See the response to DTSC Comment No. 27 in "Response to DTSC Comments", dated 15 March 2005. Not all overburden samples will be analyzed for dioxin-like compounds. It is OBRA's opinion that this level of testing is unnecessary, not cost-effective, and will delay field work, as laboratory turn-around times for dioxin analysis can be upwards of one month. Rather, OBRA will analyze a total of 15 overburden samples for dioxin-like compounds, and target those samples to soil that (a) originated from areas most likely to contain dioxin-like compounds, i.e., just above the observable Organic Residue and where dioxin -like compounds were previously detected, and (b) has less frequent analysis of dioxins or where detection limits were high.*

Please call if you have any questions.

Very truly yours,

ERLER & KALINOWSKI, INC.

Michael T. Steiger, P.E.
Project Manager

cc: Andrew Clough, R.G. (OBRA)
Diane Heinze, P.E. (Port of Oakland)
Henry Wong (DTSC)
Adriana Constantinescu (RWQCB)
Roger Caswell, P.E. (U.S. Army)

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6 April 2004

Ms. Xuan-Mai Tran
Remedial Project Manager
U.S EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Subject: Response to U.S. EPA Comments on
Draft Remedial Design and Implementation Plan, Former ORP/Building 1 Area,
Former Oakland Army Base – EDC Area, Oakland, California
(EKI A10063.00)

Dear Ms. Tran:

On behalf of Oakland Base Reuse Authority ("OBRA"), Erler & Kalinowski, Inc. ("EKI") has prepared this letter in response to U.S. Environmental Protection Agency, Region IX ("U.S. EPA") comments on the *Draft Remedial Design and Implementation Plan ("RDIP"), Former ORP / Building 1 Area, Former Oakland Army Base – EDC Area, Oakland, California*, dated 9 February 2004, as provided in U.S. EPA's comment letter dated 8 March 2004. This letter contains a restatement of each of U.S. EPA's comments, followed by EKI's response.

General Comments

1. Please ensure that in the final draft, all highlighted blank spaces are replaced with the correct information. This includes the blank spaces found in Sections 3.2 (page 3-2, 3-3, and 3-4), Section 3.8 (page 3-13), Section 4 (page 4-1), Section 4.1 (page 4-2), Section 4.2.5.6 (page 4-7), Section 4.2.6 (page 4-9), Section 4.4 (page 4-10), Section 4.5 (page 4-10), Section 4.6 (page 4-10), Section 7 (page 7-1), and Appendix B (page B-3, B-4, B-14, B-19).

Response: *All highlighted blank spaces, including those specified above, will be replaced with the appropriate information in the final RDIP submittal, planned for submittal to the U.S. EPA and other agencies by approximately the end of July 2004. The final RDIP will be submitted to the agencies following bidding, selection of a Contractor, and selected Contractor's preparation of plans to be attached to the final RDIP.*

Specific Comments

1. Section 1.2.2.4, Underlying Clayey and Sandy Sediments, Page 1-7: The text states that no chemicals were detected in the clayey and sandy sediment samples at concentrations that are indicative of source soils or principal threat wastes that would require removal in accordance with the RAP/RMP, but does not explicitly state whether any chemicals were detected at concentrations greater than Remediation Goals. Please explicitly state whether any chemicals were detected at concentrations greater than Remediation Goals.

Response: *Chemicals of concern ("COCs") were not detected in Underlying Clayey and Sandy Sediments at concentrations greater than Remediation Goals. Section 1.2.2.4 of the final RDIP will be modified to state: "Chemical impacts to this underlying layer from overlying contaminated materials have been found to be minimal; no chemicals were detected in the clayey and sandy sediment samples at concentrations that are indicative of source soils or principal threat wastes, or that are greater than Remediation Goals that would require removal in accordance with the RAP / RMP."*

2. Section 1.2.2.5, Shallow Groundwater, Page 1-8: According to this section, "the low pH groundwater does not appear to extend horizontally much beyond the areas where Organic Residue is present beneath the groundwater table." Please replace the phrase "much beyond" with terminology that is less vague.

Response: *Section 1.2.2.5 of the final RDIP will be modified to state: "On the basis of groundwater samples in the Building 1 area, the low pH groundwater does not appear to extend horizontally beyond the areas where Organic Residue is present beneath the groundwater table. The available groundwater pH data (Table 1) indicate that low pH groundwater does not extend beyond the limits of the planned Base Case Excavation limits."*

3. Section 2.1.1.3, Potential Chemical Hazards, Page 2-3: The text states that the Site-Specific Health and Safety Plans (H&SPs) will, at a minimum, account for potential occurrences of the COCs that have been detected at the Site during the anticipated environmental remediation activities. Please clarify if the H&SPs will account for potential occurrences of these COCs at maximum concentrations detected during previous investigations.

Response: *It is not necessary that all H&SPs address the individual maximum COC concentrations detected anywhere on the EDC Property, but they should address all data, including detected maximum concentrations of COCs believed to exist in any given work area. Thus, the H&SPs will account for potential occurrences of COCs at maximum concentrations detected during previous investigations in the area within which the work covered by the H&SP will occur. Section 2.1.1.3 of the final RDIP will be modified to state: "The Site-specific H&SPs prepared for the Site will, at a minimum, account for potential occurrences of these*

historically detected maximum COC concentrations at the pertinent locations of the Site during the anticipated environmental remediation activities, that is, site-specific H&SPs will address all available data for planned work areas."

4. Section 2.2, Permits and Agreements, Page 2-11: The table mentions a Demolition Permit required for demolishing Building 6 and 60. If this demolition is relevant to the remedial activities discussed in this text, please discuss it further in the text. On the other hand, if this demolition is postponed until later, please mention the information in the text of when this demolition will take place.

Response: *The requirement for a Demolition Permit will be removed from the table in Section 2.2. No building demolition activities are expected to be included in the Building 1 Area remediation project.*

5. Section 3.2, Extent of Excavation, Page 3-3 and 3-4: The text states that the Contractor will stop excavating soil before reaching the Base Case Excavation limits shown on the construction drawings if no Organic Residue or otherwise visually impacted soil is present along the sidewalls or bottom of the excavation, or as otherwise directed by the Client Representative. However, this protocol only applies when "nearing" lateral and vertical limits shown on the construction drawings. Please replace the term "nearing" with more specific terminology to clarify at what point it is appropriate for the Contractor to assume the excavation is close enough to the lateral and vertical limits that excavation can be stopped if no Organic Residue or otherwise visually impacted soil is present.

Response: *It will be the responsibility of the Client Representative to determine whether there are any areas within the defined Base Case Excavation limits that do not warrant excavation. Section 3.2 of the final RDIP will be modified to state: "This protocol for early termination of excavation in any portion of the planned excavation only applies when approved by Client Representative based on review of available sampling data and field observations; the Contractor will not be allowed to leave Building 1 Remediation Waste or Stained and Oily Soil in place within the Base Case Excavation limits shown on the construction drawings where available sampling data or other observations confirm that it is present, except in consultation with DTSC to allow for inaccessible areas where excavation could endanger structures or utilities that cannot be relocated."*

6. Section 3.3.1, Overburden, Page 3-5: Since the Overburden will potentially be used as backfill, and the risk of a false positive error should be minimized (as discussed in Section 4.2.6, page 4-8), please explain why one composite soil sample per 600 cubic yards of stockpiled Overburden (comprised of three discrete samples, one each from three separate 200 cubic yard stockpiles or stockpile segments) is adequate to identify potential contamination in the Overburden.

Response: *A reference to the SAP will be added to Section 3.3.1 of the final RDIP as follows to explain why one composite soil sample per 600 cubic yards is adequate: "This sampling frequency is adequate to characterize the Overburden when used to augment existing Overburden environmental sampling data, as explained in more detail is Section 4.1.1 of the SAP (Appendix B)." The resultant overall sampling frequency is considered adequate for this RAP Site given all that is known about the source and placement of the Overburden fill soils.*

The sampling frequency for Overburden (one composite soil sample per 600 cubic yards) is further explained in the Sampling and Analysis Plan (Appendix B):

"A total of seventeen in-situ Overburden samples were previously collected and analyzed from the area within the planned Base Case Excavation limits indicated on Figure 3, which is equivalent to approximately one sample per 450 cubic yards of Overburden within the Base Case Excavation. These Overburden samples were analyzed for several different chemical constituents, including Title 22 metals, volatile organic compounds ("VOCs"), semi-volatile organic compounds ("SVOCs"), total petroleum hydrocarbons quantified as diesel ("TPHd"), TPH quantified as motor oil ("TPHmo"), polychlorinated biphenyls ("PCBs"), and dioxin-like compounds. No metals, VOCs, SVOCs, TPHd, TPHmo, or PCBs were detected at concentrations greater than Remediation Goals in these seventeen samples. Dioxin-like compounds are discussed below in Section 4.1.2.

To augment the available in-situ data collected during previous investigations, the Contractor will collect and analyze one composite soil sample per 600 cubic yards of stockpiled Overburden. Given the estimate of 8,000 cubic yards of Overburden within the Base Case Excavation, the combined frequency of the in-situ sampling and proposed stockpile sampling is approximately one sample per 260 cubic yards."

7. Section 3.4.2, Vertical Extent of Excavation, Page 3-9: The text states that "the analytical results indicate that no COCs are not present in these sediments at concentrations that exceed Remediation Goals." Please eliminate the double negative in this sentence so it is clear whether COCs are or are not present at concentrations that exceed Remediation Goals.

Response: *The double negative will be removed to read as follows: "The analytical results indicate that no COCs are present in these sediments at concentrations that exceed Remediation Goals."*

8. Section 3.4.2, Vertical Extent of Excavation, Page 3-9: Bottom confirmation soil samples will not be collected during environmental remediation activities because numerous samples of clayey and sandy sediments were collected by OBRA in January 2003 and by the Army during previous investigations, and these samples indicate that potential impacts from overlying Organic Residue and Stained and Oily Soil are minimal. Please consider collecting

confirmation samples from the bottom of the excavated area as well. It seems that collecting a few bottom confirmation soil samples in areas where groundwater has not filled the bottom of the excavation would not represent a significant expense and would be useful in further confirming that the clayey and sandy sediments are not contaminated.

Response: *Approximately 23 samples of underlying clayey and sandy sediment have historically been collected and analyzed within the proposed Base Case Excavation area, which is approximately 57,000 square feet. This number of underlying clayey and sandy sediment samples corresponds to an approximate sample frequency of one sample per 2,500 square feet, or one sample per 50-foot gird. Despite this apparent frequency in sampling, EKI agrees with U.S. EPA that, if possible, some confirmation soil samples should be collected from the excavation bottom in areas where groundwater has not filled the bottom of the excavation. If possible, up to six bottom confirmation samples will be collected in areas of the excavation where the prior in-situ data are less frequent and spaced farther apart (see attached Figure 1). Figure 1 depicts the locations from which samples of Underlying Clayey and Sandy Sediment have historically been collected. No COCs were detected above Remediation Goals in any of these historic samples. Section 3.4.2 of the final RDIP will be modified to indicate that bottom confirmation samples may be collected under these conditions.*

9. Section 5.1, Groundwater Monitoring, Page 5-1: Please clarify if the groundwater restrictions mentioned in this section are permanent restrictions.

Response: *Please refer to the deed restriction for the property. The deed restriction will be referenced in the RDIP, where appropriate.*

10. Appendix B, Section 4.1.2, Sampling for Dioxin-Like Compounds, Page B-10: Please justify the testing of only one third of the composite Overburden samples for dioxin-like compounds. It seems that since one of the five previous samples contained dioxin-like compounds at concentrations that exceed the Remediation Goal, and since the Overburden will potentially be used as backfill, all samples should be tested for dioxin-like compounds.

Response: *The maximum concentrations of dioxin-like compounds were detected in a composite Overburden sample that was formed from two discrete samples collected at 3 ft bgs from trenches OBRA-T08 and OBRA-T10, just above the observable Organic Residue. However, the particular dioxin-like compounds that were detected in this sample were not identified as chemicals of concern in the RAP / RMP, and thus do not have a Remediation Goal. The other five Overburden samples analyzed for dioxin-like compounds were found to contain only trace or non-detectable concentrations of dioxin-like compounds. None of the Overburden samples, including the composite sample formed from OBRA-T08 and OBRA-T10, were found to contain 2,3,7,8 - TCDD above analytical laboratory reporting limits, which is the only dioxin-like compound identified as a COC in the RAP / RMP.*

Nevertheless, EKI agrees with U.S. EPA that additional dioxin-like compound analyses of Overburden and other soils are warranted for soil that may be reused to backfill the excavation. Overburden and other soils that may be reused will be analyzed for dioxin-like compounds at an overall frequency of approximately 1 sample per 600 cubic yards as discussed in Section 3.3.1 of the RDIP. The sample collection for dioxin-like compound analyses will target Overburden soil and other soils that originate near trenches OBRA-T08 and OBRA-T10 and locations where in-situ dioxin data are less frequent and spaced farther apart, e.g., sub-areas B, C, F, and G. OBRA estimates that a total of approximately fifteen samples will be analyzed for dioxin-like compounds.

Please call if you have any questions.

Very truly yours,

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